

ABSTRACT

A cellular radio system transmits data from an IP-based network, through a base station controller (BSC) and any Base Station Transceiver (BTS) controlled by the BSC, to a plurality of active subscriber units. Instantaneous data transmission from the BTS to any active subscriber unit is at one of a plurality of given transmission rates and at a defined power level that is a product of a specific power and a multiplier, relative to a maximum total power transmittable by the corresponding BTS. A method for estimating the instantaneous specific power of transmission from the BTS to active subscriber units comprises defining in time a succession of observation windows, observing the data flowing into the BSC and addressed to each of the active subscribers and, for each subscriber, measuring the data flow during each of the observation windows, thus allowing calculation of an estimated specific power for each of the subscribers.